

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claim 6 is amended. Claims 6-10 are pending.

Entry of Amendment under 37 C.F.R. § 1.116

The Applicant requests entry of this Rule 116 Response because: the amendments were not earlier presented because the Applicant believed in good faith that the cited references did not disclose the present invention as previously claimed; and the amendment does not significantly alter the scope of the claim and places the application at least into a better form for purposes of appeal.

The Manual of Patent Examining Procedures (M.P.E.P.) sets forth in Section 714.12 that “any amendment that would place the case either in condition for allowance or in better form for appeal may be entered.” Moreover, Section 714.13 sets forth that “the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified.” The M.P.E.P. further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

I. Rejection under 35 U.S.C. § 103

In the Office Action, at page 2, numbered paragraph 2, claims 6-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,696,744 to Okamoto et al. This rejection is respectfully traversed because Okamoto does not discuss or suggest:

a disc detection unit detecting a size of the optical disc between the first size and the second size when the optical disc is determined, based on the detected weight, to not have the second size less than the first size, the disc detection unit detecting the size of the optical disc by detecting, based on the comparison, whether the amount of data recorded on the optical disc is greater than the reference value, the disc detection unit determining that the optical disc has the first size when the amount of data is detected to be greater than the reference value,

wherein the apparatus moves a pickup to a periphery area of the optical disc when the amount of data is detected to not be greater than the reference value to measure a focus error, the disc detection unit determines that the optical disc has the first size when the focus error is measured to be above a constant value and determines that the optical disc has the second size less than the first size when the focus error is measured to not be above the

constant value,
as recited in amended independent claim 6.

Okamoto discusses that the diameter of the optical disk may be discriminated by counting the activation time required for the number of rotations to reach a predetermined value, which may be interpreted to be "weight detection" of the optical disk. Okamoto further discusses that the diameter may be discriminated based on the length of the total recording time recorded on an innermost area of the optical disk. Okamoto also discusses that, in a separate implementation, the reproducing head is moved to a position corresponding to the outermost portion of an 8 cm CD and when the light reflected by the CD is present at that position, a discrimination signal representing whether focus control is performed or not is output, so that the disk is determined to be a 12 cm CD when the discrimination signal is outputted and to be an 8 cm CD when no discrimination signal is output.

Okamoto does not, however, make a final determination as to whether an optical disc is an 8 cm CD or a 12 cm CD based on first detecting the weight of the disc, then determining, if the disc is not determined to be an 8 cm CD, that the disc is a 12 cm CD when an amount of data recorded on the disc is greater than a reference value. Further, Okamoto does not then, if the amount of data is detected to not be greater than a reference value, move a pickup to a periphery area of the disc to measure a focus error and then determine that the disc is a 12 cm CD if the focus error is above a constant value and determine that the disc is an 8 cm CD if the focus error is not above the constant value.

In contrast, the present invention of claim 6 utilizes multiple steps in order to eliminate possibilities in order to reduce the computation time necessary to determine whether the disc is 8 cm or 12 cm. Specifically, by requiring the multiple steps of measuring the weight, detecting the amount of data and then measuring the focus error, the invention of claim 6 allows for a progressively smaller amount of calculations necessary to ultimately determine whether the disc is 8 cm or 12 cm.

Further, the focus error method of Okamoto discusses that if focus control is performed, the disk is determined to be a 12 cm CD, and if it is not performed, the disk is determined to be an 8 cm CD. However, the present invention of amended claim 6 recites that the disc detection unit determines that the optical disc has the first size when the focus error is measured to be above a constant value and determines that the optical disc has the second size less than the first size when the focus error is measured to not be above the constant value. The focus error is measured for both types of optical discs.

In addition, the Examiner alleges that "as the methods were individually known, one of ordinary skill could have combined them together with predictable results...[in order] to introduce redundant checks, improving accuracy." However, there is no indication from the cited motivation as to why one of ordinary skill in the art would particularly measure the weight, then if the disc is not determined to be one type of disc, detecting the amount of data and then if the disc is not determined to be one type of disc, measuring the focus error to determine what type of disc is being used. The multiple progressive steps of amended independent claim 6 particularly allow for less calculations to be necessary, dependent on whether a previous step has identified the disc as one size or another size disc.

Further, the present invention of claim 6 allows a determination to be made, after the weight determination, as to whether the disc is a 12 cm disc on which data is fully recorded, a 12 cm disc on which data is partially recorded or an 8 cm disc. Further, after the comparison determination determines that the amount of data is not above a predetermined value, the present invention of claim 6 allows a determination to be made as to whether the disc is a 12 cm disc on which data is partially recorded or an 8 cm disc.

"Introducing redundant checks" does not explain why one would particularly utilize all of the steps of claim 6, as Okamoto particularly clarifies that there are problems with, for example, counting the activation time and discriminating the length of the total recording time. The present invention of claim 6 weighs the disc and makes a determination as to whether the disc is an 8 cm disc or not. Only if the disc is determined to not be an 8 cm disc, does the operation progress. Okamoto discusses that there are possibilities of mis-discrimination. However, the progressive steps of the present invention of claim 6 do not relate to mis-discriminating sizes of discs, but involve identifying disc sizes and removing from identification those disc sizes that are able to be easily identified. Thus, introducing redundant checks does not suggest why one of ordinary skill in the art would utilize these progressive steps together.

Therefore, as Okamoto does not suggest "a disc detection unit detecting a size of the optical disc between the first size and the second size when the optical disc is determined, based on the detected weight, to not have the second size less than the first size, the disc detection unit detecting the size of the optical disc by detecting, based on the comparison, whether the amount of data recorded on the optical disc is greater than the reference value, the disc detection unit determining that the optical disc has the first size when the amount of data is detected to be greater than the reference value, wherein the apparatus moves a pickup to a periphery area of the optical disc when the amount of data is detected to not be greater than the

reference value to measure a focus error, the disc detection unit determines that the optical disc has the first size when the focus error is measured to be above a constant value and determines that the optical disc has the second size less than the first size when the focus error is measured to not be above the constant value," as recited in amended independent claim 6, independent claim 6 patentably distinguishes over the reference relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Claims 7-10 depend directly or indirectly from independent claim 6 and include all the features of independent claim 6, plus additional features that are not suggested by the reference relied upon. For example, claim 10 recites that "the third disc detection unit detects the optical disc as a fashion disc if the measured focus error is below the constant value and as a standard disc having a diameter of 12 cm on which data is partially recorded if the measured focus error is above the constant value." Therefore, claims 7-10 patentably distinguish over the reference relied upon for at least the reasons recited above. Accordingly, withdrawal of the § 103(a) rejection is respectfully requested.

Conclusion

In accordance with the foregoing, claim 6 has been amended. Claims 1-5 and 11-29 were previously cancelled. Claims 6-10 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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